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The Semi-Centennial of the New York Academy of Medicine

ORATION DELIVERED BY

A. JACOBI, M.D. ✓

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Reprint from the MEDICAL RECORD, March 6, 1897

NEW YORK
THE PUBLISHERS' PRINTING COMPANY
132, 134, 136 WEST FOURTEENTH STREET
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A. JACOBI, M.D.,

NEW YORK.

MR. PRESIDENT!

MR. PRESIDENT AND FELLOWS OF THE NEW YORK ACADEMY OF MEDICINE, LADIES AND GENTLEMEN: One century has expanded this nation of three millions into its present population of seventy. Its democratic constitution attracted Europeans weary of class differences, prejudices, and sufferings. Liberty and equality, inscribed on its flag, opened opportunities to intelligence and diligence, roused legitimate rivalry, and developed inventive genius and independence of character. While inventive genius, coupled with industry, led to prosperity, independence of character found or fought its way out of political errors or actual calamities, sometimes without, other times with the guidance of clear-headed, unselfish, determined, and consistent leaders. But a young nation in its infancy has, properly speaking, no preconceived designs. It is like a product of nature, unfolding spontaneously. In evolving its organic life it rises to self-consciousness, and possibly to the development of an ideal.

It was on the same democratic basis that one-half of a century ago the New York Academy of Medicine was founded. But it differed from the national commonwealth in this, that it required no time to exhibit concerted aims or definite plans. Nor was it without an ideal from its beginning. It was well understood

that our Academy was to differ materially from what is called an academy of medicine in Europe. A European academy is always a government institution, in some way or other supported by centralized national means. Its members comprise the intellectual and sometimes the social heads of the profession only. Young faces are but seldom seen among its fellows. Membership is, as a rule, obtained after a long life of successful scientific pursuits only. Their labors and efforts are not intended for practical aims or objects, but they become beneficent by the action of that logical force which ordains that there is no scientific result, no truth ever so abstruse, but will finally terminate in some tangible application. Though all this be true, the limitation and exclusiveness of membership results in a sort of aristocratic estrangement from the masses of the profession, and still more from the community at large.

The New York Academy of Medicine has a broader basis. The high and lowly, the old and young, the mature and the youthfully ambitious, though they represented the most different and various types, combined for the same purposes.

According to a circular issued years ago, in the possession of many, the Academy is not connected with any school or college. It is self-supporting, and carried on in the interest of the whole profession. There are no fees or emoluments of a private or individual nature. It is a democratic community, with equal duties and rights. It is not subsidized by the State or municipal corporation. Its aims are the elevation of the profession to a higher scientific standard for increased public usefulness. We claim that these aims concern the public as much as they do the profession. Increased scientific attainments on the part of the medical men of the country secure to the people great advantages and more effective service. Here it is that the interests of the nation and of the profession

meet. Ay, I shall prove to you that the immediate interests of the whole community have for many years been uppermost in the creed and in the deeds of the Academy. Indeed there is abundance of evidence to demonstrate that the Academy deserves the general interest and sympathy exhibited to-night by so many distinguished not only in society but in all the professions, and in literature and science; ay, by the Chief Magistrate of the nation.

The history of the New York Academy of Medicine as a scientific institution is contemporaneous with that of modern medicine as created by Virchow and the German school which rapidly rose and broadened into scientific cosmopolitanism. In this wonderful evolution the Academy has freely participated. It was fully prepared for it by its ancestry. That ancestry was Anglo-Saxon medicine, which, since Sydenham, never swerved for any length of time nor suffered from philosophical theories built on clouds, or from the chaos of mysticism which reigned supreme in a part of the European continent during the first half of this century. The American medical profession, like its Anglo-Saxon ancestry, was penetrated by the spirit of intelligent scrutiny. The best of the one hundred and eighty-four founders of the Academy developed it, the plainer men shared it. The fifty years of its existence have furnished wonderful proof of the facile adaptation of Anglo-Saxon clinical empiricism to the equally solid results of modern pathology, histology, and bacteriology.

The very first paper printed in 1847 for the Academy was a historical sketch, by Pliny Earle, of the institutions for the insane in the United States of America. Much later, in 1861, Parigot read his paper on moral insanity in relation to criminal acts. The interest in that all-important subject, so replete with dangers both to the actual or alleged criminal and to human society, has never died out in the Academy,

until it could sustain a few years ago the movement to transfer our insane to State care, with which the name of Louisa Lee Schuyler will forever be indelibly connected. The report of a committee upon the comparative value of milk formed from the slops of distilleries and other food, in 1848, was followed by one on solidified milk, in 1854, and another one on city milk, in 1859. William H. Van Buren's and Gurdon Buck's papers on tracheotomy in croup, and Van Buren's on hip-joint amputation, were read in 1850. Valentine Mott's (the first to operate for aneurism of the innominata) remarks on the importance of anæsthesia from chloroform date from 1848; his case of aneurism and ligature of the left subclavian artery from 1851. Not long after, C. E. Isaacs communicated his original work on the structure and physiology of the kidney, 1856; and John C. Dalton his memorable researches on the anatomy of the placenta in 1858.

Some time previously the accessibility of the larynx and bronchial tubes was first proven in the Academy by Horace Green—that was more than forty years ago. The cholera epidemics of previous times were the subjects of papers, thoroughly enjoyable to-day, by John W. Francis. The diphtheria discussion of January, 1860, was an incentive to observation and study all over the States and beyond. Gurdon Buck invented his and our present method of treating femoral fractures, in 1861. J. Marion Sims, whose statue adorns Bryant Park, benefited mankind by his silver sutures, by improved and by new operations, and by many papers and discussions. John Watson wrote for the Academy his learned history of medical men in ancient times in 1856. On the floor of the Academy J. T. Leaming, after P. Camman had facilitated diagnosis by the double stethoscope, still in use, taught his brilliant theories of the functions of the pleura and of the respiratory murmurs.

Not long after, 1863, Louis Elsberg instructed the profession in the topical medication of the larynx and neighboring organs under sight. John C. Dalton spoke on "Vivisection, What it Is, and What it Has Accomplished," in 1866; and the Academy published Robert T. Edes' prize essay, 1869, on the physiology and pathology of the sympathetic or ganglionic nervous system; also a report of William C. Roberts on the causes of death and disease in the metropolis, 1868. There were also notable discussions on cholera, on chronic metritis, on ventilation, and on sanitary police in 1866, and the paper in 1867, by A. C. Post, on the curative effects of blood letting. There were contributions by Willard Parker, Alonzo Clark, Austin Flint, and a host of others, whose names will not be forgotten, though they be not mentioned here. For it cannot be my intention to review all the Academy has accomplished during its lifetime. What I have told you refers to those whose faces and voices are known to our memories only. Indeed, while I was glancing over the sacred list of the one hundred and eighty-four founders, my eye was arrested by at least forty names of men who by original investigations and contributions have deserved well of the science and art of medicine.

As to those still living, a single allusion must suffice. One of the later great results of academic work was the memorable discussion on intubation of the larynx in croup, on June 2, 1887. It followed the discoverer's long continued labors and his paper on "Intubation versus Tracheotomy," and carried the renown and influence of American ingenuity all over the globe. Let me also mention the debates of last year on the diphtheria antitoxin, which have contributed much to the study and dissemination of the employment of that beneficent antidote.

Such are the method and line of work by which this American institution has exhibited its power, enlarged

its sphere of influence, and rivalled the countries of old Europe. Such is the kind of competition as is bid a hearty welcome all over the world. That is the only kind of interference with and combination against Europe which, without collision, but with co-operation, is worthy of the great American people. There is your reciprocity without a treaty, indeed not only reciprocity of mutual giving and taking, but the proof of intellectual solidarity and fraternity of civilized mankind.

The distinctive feature, however, of the New York Academy of Medicine, as a peculiarly American institution, is not its merely scientific work. This it has in common with similar organizations in monarchical countries. Its characteristic superiority consists in this, that it is composed of citizens. The American is or ought to be, the "*zoön politikon*," the political creature of Aristotle, a co-operative cell in the organism of society. From that point of view let me glance over the fields on which you will find the members of this association in full activity; let me indicate what they are doing for you individually as practitioners; for you as a community as sanitarians, to the utter neglect of self-interest; let me also show the relation of the Academy to its own members and to other scientific bodies. Finally let me consider what it and you combined may be capable of achieving for the future of medicine and of mankind.

As practitioners, the members of the profession, academicians and others, have amply satisfied the reasonable expectations of the sick in the community. In former times almost every man, the most illustrious surgeon of the day not excepted, was a general practitioner. Specialists were not so numerous as they are to-day; indeed, there existed but few. These were men of ripe general experience, who would confine their work to a special organ or line of practice. When medical science broadened out and its progress

depended on thoroughly specialistic study and research, the big old tree divided up into branches and branchlets; and in the practice of medicine the number of specialists, both mature and immature, justifiable or otherwise, increased almost incredibly. Time will be demanded to correct the mistakes and incongruities of overgrowth. Meanwhile, I am glad to be able to assure you that general practitioners still exist, and also that many specialists, known or unknown as the case may be, have not ceased to be doctors. You know them well and intimately. Your doctor is summoned night or day, by your servant, or your telegram, or telephone. You order, there he is. He is expected to aid you, with therapeutical and other means—*therapōs* means servant; and to cure—the very word means care. If ever there is a class of persons who deserve to be decorated with the device "*Ich dien*," "I serve," it is your doctor. He must not know, he does not know, the difference between night and day. With doleful jealousy he might hear of the efforts of philosophers, philanthropists, statesmen, and even of politicians, in favor of an eight-hour or ten-hour day. He is expected and willing to work indefinitely to lighten somebody's burden, like sun, or moon, or stars, that know of no rest. If anybody, your doctor is not the lily in the field that does not spin.

The same doctor goes a few streets to a hospital or to a dispensary. There he serves the poor, or the alleged poor. One of the hundreds of necessary and unnecessary institutions of the kind with which different grades of exigency, or philanthropy, or officiousness, or greed, or the wants of a teaching institution, have supplied the city claims his service. He meets the poor and also those who don the clothing of their servants to appear poor, sometimes those who leave their carriage and footman around the corner. He must not complain. He has heard of the woman in the Gospel who, before she applied to the Master

Healer, is said to have "suffered many things from the physicians;" and concludes that the time has now come when the physician is to suffer from the many. Thus he aids, though ever so unwillingly, in robbing himself and his professional brethren, and in demoralizing and pauperizing a goodly part of the community. That is another unwelcome outgrowth of modern science and philanthropy, to correct which time and thought, and the co-operation of the profession and the public are urgently demanded.

Thus he works on and on. It is but a few weeks ago that an old practitioner told me of his life. It was all work and never so much as a vacation. Exhausted he was at night, tired in the morning. He lived on the stimulants of duty performed and on the intellectual and moral interest he took in his work, complaining only that he could not do it to his own satisfaction. Perhaps some of you remember having gazed at a statue in Munich. It represents a youth climbing upward, passing disdainfully the golden calf to attain what he evidently believes to be a crown of laurel in the hands of the goddess. What he finally snatches is a crown of thorns. Still he climbs, maybe to reach the stars, to which Ralph Waldo Emerson bids us hitch our wagons. In spite of failures, I say to my young friends, hitch your wagon to the stars. Not everybody falls like Icarus, and the horizon enlarges from the heights. This your horizon, let it be vast; unless it be so, both the morals and the science and art of medicine will suffer. It is from that point of view also that I exhort my friends, either pure scientists or practitioners, never to forget that there is no antagonism between the two classes. The time is past, and partly through the efforts of your Academy, when the pure scientist looked upon practice as inferior, and the practitioner on pure science as beyond the pale and unpractical. Helmholtz, than whom this century has produced no more intense

worker in pure science, proclaimed that mere knowledge is not the aim of man; that you may dignify it in two ways only, either by applying or by enlarging it. Knowledge without its application in the service of mankind, is like a library without readers, a museum without visitors, a symphony without hearers. Apply what you know and daily learn in the community's service. Do not forget that there is no power more worth possessing and inestimable than life and health. That truth is certainly in the minds of the American public, misguided though it be when it feels like paying two hundred million dollars, annually, for proprietary drugs. Nor should you be discouraged by what Pliny said and others credulously accept: "Say you are a physician, and you will be believed. Detract from your neighbor and you will be considered superior." Mind what you may have read over the gate of a Swiss hospital, "*Res sacra miser.*" So your community, when in danger of health or life, is "*res sacra*" to you.

What has the Academy done for its members? As a previous practice of three years in the city is required of a candidate, and the scrutiny of the committee on admission is always painstaking and fearless, the average standing and proficiency of the fellows is high and their moral tone elevated. The committee on ethics of former decades has, therefore, been abolished together with the abrogation of the official code. No authoritative body of rules is required or recognized in place of the unwritten law of gentlemen. Alleged cases of transgression are relegated to the decision of the council, but none was required for years. In the Academy of Medicine there are no professional politics. It is considered neutral ground, and the differences of schools, cliques, and combinations are supposed to be left behind when a fellow passes the entrance gate. Still, we are not all angels. That secret will come out some day, and may as well

be whispered in public. That is why questions beyond the domain of the Academy are, however, forced in sometimes. That is to be deplored. Battlefields there are as many in New York City as in the Virginia Wilderness, or about Lake George or ancient Rome; but Rome had its temples of Vesta and Peace. Let the profession of New York remember and revere the Academy as the one temple of safety, impartiality, and neutrality.

To none has the Academy been of more service than to the younger members. To become fellows after a fair examination of their claims to admission is in itself an honor and improves their standing. Besides, all of the eleven sections have been in working order these twelve years. That means that eleven times as many fellows found a direct encouragement for work, both in private and in public. In the section meetings, the future officers of the Academy and teachers of the profession find a new incentive to labor and research, and are always certain of an appreciative audience.

Our relations to the public at large and to the city and State have frequently been the subject of discussion. You may have been told that we demand special class legislation. If that were true, we, democratic American citizens, should be on the level of German students before they were deprived of their clannish jurisdiction, or of the Prussian military officer, whose moral is based on his sword and sense of justice on the prerogatives of his degenerate nobility. In a few words, the public may learn the attempts on the part of the profession to secure a so-called special legislation. These twenty years we have been fighting in Albany for a preliminary education of matriculants, also for State examinations as a condition upon which alone the license to practise should be awarded. We, the Academy in conjunction with the rest of the profession, have worked to increase the duration and

the number of college courses. The profession, particularly as it is represented in the Medical Society of the State of New York, has secured laws against quackery, and the Medical Society of the County of New York has undertaken to extinguish it in this city. This committee sacrifices its time, and the society its own money, to combat frauds, quacks, and diploma mills. That does not look like class egotism. You should admit it is something entirely different unless you wish a low grade of knowledge in your medical advisers.

Your Academy and your profession were ever of the opinion that there must be no free trade in human flesh. Many of your old doctors were abolitionists when this nation was still disgraced by slavery. All of the old and young members who are imbued with respect for human life and health, and with the sense of their own responsibility, have combined to do your fighting, the community's fighting, against the dangers of quackery. It is not the existence of the profession, it is the safety of you, the public, that is enhanced by your special legislation. Two things I have been told; sometimes one was that, no matter how low the standard of medical men was in some parts of the country, they were always superior to their community; the other word was, doctors were generally better than the public deserved or deserves. You can prove that such is not the case by co-operating with your doctors. We beg of you, we insist upon it, that you and your delegates, the legislators in Albany, may continue to protect you and yours from the inroads of charlatanry and ignorance. Do not forget, however, I speak here of the battle against positive ignorance, assumption, and downright illegal quackery.

The Academy does neither recognize nor fear, as in times long gone by, isms and sects, and for that very reason does not propose to war against them or even to denounce them. In its whole history of the last

quarter of a century and perhaps longer, I fail to read of a case of persecution of a man or of a body of men directed against their scientific principles or prejudices. Moreover, to discuss honest scientific errors, alleged or real, in an inimical spirit is to endow them with new life. If there was animosity it has been dying fast. Not that I mean to say that the medical world was always just. Semmelweiss, who was driven by his alleged peers into an insane asylum because he preached and practised upon the knowledge of the contagion of puerperal fever, about the same time that our own Oliver Wendell Holmes wrote his wonderful essay on the same subject, or our own Atlee, who was vilified and harassed because of his leading in an operation that at present is of daily occurrence, are evidences of shortsightedness and impressibility. Still, after having observed and co-operated with the profession in this city these forty-three and with the Academy of Medicine these forty years, I know, though errors may have crept in, that none but the purest and most altruistic motives have governed the actions of the profession. Least of all is Herbert Spencer correct when he says that "the incorporation of authorized practitioners has developed a trades-union spirit which leads to jealousy of the unincorporated practitioners, that is, the irregulars; and, like the religious priesthood, the priesthood of medicine persecutes heretics and those who are without diplomas." I trust the great philosopher's sympathy with heretics and those who are without diplomas will never revenge itself upon him and his health.

Great questions of the day have always inspired the medical profession. Both old Socrates and modern Kant expected the light pre-eminently from medicine. It is true that in the politics of our country we have but few medical combatants, compared with the good done by medical statesmen in Europe; but that of Benjamin Rush outweighs many names not belong-

ing to his and our profession; and until the latest time physicians have participated in your reform movements. The Committee of Seventy of 1872 had among its most active members one of the most prominent men the New York Academy of Medicine ever counted among its own, Ernst Krackowizer. In public concerns the Academy was always interested. It took the initiative in many movements, the realization of which had long to wait. Medical school inspection, inaugurated just now, was urged by the profession in open meetings twenty-five years ago, and again by members of the Academy half a dozen years ago. The Willard Parker Hospital was planned and its organization pushed by a member of the Academy. Again it was a fellow of the Academy who renewed, if not instigated, the agitation for the new factory laws in behalf of women and children in 1882. Clean streets, or rather muddy and unhealthy streets, also the tenement-house question, also school houses, and the reception hospital were the subjects of many debates. It was a committee appointed, at the request of the board of health, which originally started in the Academy, and which, under the leadership of C. R. Agnew, whose mind and heart have immortalized him in the memory of those who were so fortunate as to live and work with him, reformed the quarantine of the port of New York, and elaborated the plans and estimates according to which the legislature finally restored Hoffman and Swinburne islands to their present condition. Another committee of the Academy looked after the Croton water and the watershed.

It was through a committee of the Academy that medical inspection of the eyes of all the inmates was introduced in public institutions. If that practice were continued conscientiously, and attention to the eyes of the newly born suffering from the same contagious ophthalmia were made compulsory, there would be many vacancies in our future blind asylums.

The Academy's efforts joining those of other medical bodies of the land in favor of the establishment of a national board of health, were, however, not successful. They will prove so in future. For just as certainly as this nation means to continue "now and forever, one and inseparable," its most sacred boons, viz., health and life, interdependent as they are over the vast area of the country, should be secured by uniform legislation. It was the Academy of Medicine, again, which was called upon to protect the port and the city against the invasion of cholera. That was four years ago—a long time, perhaps, for republican memories; but it is not forgotten that the committee men, though among the busiest of the city, were always at their post; that their efforts were successful and at that time appreciated; that they aided in keeping cholera out, and, at the same time, protected the commercial interests of the country. We trust the chamber of commerce has not forgotten its own estimation, as then expressed, of the Academy's services. Nor have the poor of this city, and of others that imitated its example, a reason to forget the Academy. The agitation for the establishment of free public baths was begun by one of its fellows in 1890, and has resulted in the erection of four such institutions. Two hundred and fifty thousand people availed themselves of the opportunities thus offered in a single year.

The responsibility toward both the public and the profession was always deeply felt by the Academy. Its library is free to the whole profession, fellows or not, and to the public at large. Beside medical works, it has many of interest to the legal profession. By both it will be readily admitted that there are more useful and more congenial relations between them than when they meet in a court of justice, where the medical man, clad with the mantle of partisan expertise or expert partisanship, does not shine to advan-

tage, and is apt to contribute less to the honor and dignity of his profession than to the miscarriage of justice.

The Academy's hospitality is constantly exhibited in the cases of the numerous national medical societies which convene gratis under our roof. The Society for the Relief of Widows and Orphans of Medical Men, the Saturday and Sunday Hospital Association, the Ladies' Protective Health Association, are made welcome on the same conditions.

The Academy is recognized as their head centre by other medical societies which cluster around it. It is in its section rooms or in Hosack Hall where they hold their regular meetings; one at least gave up its independent organization to become a section of the Academy. It cannot be avoided, however, that the generosity of the Academy is occasionally abused. Now and then we hear of desirable men who refuse to join and pay the annual contribution, on the plea that without personal membership they enjoy the privileges of those who pay their dues, that is, access to the building, the meetings, the papers, and the free library and reading-room. Such occurrences do not prove much, while exhibiting the broadmindedness of the Academy, except the occasional presence in the medical ranks of selfish men. Fate made a mistake when it admitted them to American citizenship and to a liberal vocation. Membership in a profession is by itself not sufficient to ennoble a man; it is the noble man who adorns and exalts his profession.

Nor do the academicians confine their labor to their own institution or to the city. There is no national association in which they are not interested and co-operating. It was a fellow of the Academy who established a section for diseases of children in the American Medical Association. Its members are largely represented in the Association of American Physicians, and in the American surgical, pædiatric, climatological, gynæcological, and other societies. In

the transatlantic congresses, the British-Medical Association, and the international medical congresses, their names are frequently met with.

What I could say, fragmentary though it be, should have convinced you that the best individual and collective efforts of the profession as represented in the Academy, are being spent in the service of the community. In the same degree that the intellectual and scientific development of medicine and of the profession has been progressing, that service became more valuable. Now, on all your lips I am reading the question: What can the community do for the science and art and the profession of medicine, and particularly for that of the city?

The monarchies of Europe, particularly continental Europe, have had medical schools these five hundred years; in this century their number increased. The facilities for teaching and learning were enlarged. In the last twenty-five years laboratories and clinics and libraries grew steadily with growing demands. The professors are salaried, their future is secured by pensions, their incidental expenses are paid, their lives are allowed to be dedicated exclusively to scientific research; for they and their children will not go hungry. All this is done without individual exertion or contributions. No matter whether wars crippled the means of the people, or whether militarism sucked the marrow of the land, or the sterile soil did not even feed the mostly agricultural population, the universities were provided for more or less generously by the government, at public expense.

With us the community is its own providence. The democratic citizens are their own sovereigns, and their means permit them to give way to their generosity. Schools, churches, nurseries, hospitals, libraries, have been its main beneficiaries. Medicine, however, has not yet received its full share. Still the benefactor of Johns Hopkins University and Hospi-

tal, the New York family that erected and endowed college buildings, laboratories, and hospitals for a medical school, the donors of the Carnegie and the Loomis laboratories, the founder of the Pepper Laboratory in Philadelphia, and of the Bender Laboratory of Hygiene in Albany, have accomplished exactly and often most generously, what is carried out by the sacrifices and exertions of whole monarchies. Again, only a week ago, we learned of the offer of a million dollars, made by a fellow-citizen, to whom our Academy also is under obligations for powerful aid, for purposes both of relief and instruction. You call that "royal"? No, ladies and gentlemen, that is not royal; it is the spirit of republican citizenship, dreamt by a Plato, realized by an American. Nor am I disposed to forget what we, the New York Academy of Medicine, owe to the New York public. It is with its spontaneous and valuable aid that we were enabled to erect the spacious and commodious building in which we hope to meet you again to-night. Though I am forbidden to mention the names of the living, I cannot abstain from recalling the ample bequest of the late Celine B. Hosack. It is to that liberality of the community that we have again appealed lately in our efforts to raise our library fund to one hundred thousand dollars. The response elicited thus far appears to justify our hope of attaining our ends in the nearest future; it certainly proves that a generous public appreciates the additional factors of learning and erudition in its skilled medical advisers.

Nor does the Academy appeal to you in its own behalf only. Every advance in the standard of medical education is a new ally to the Academy. The medical schools need endowments, like ourselves. Medical teachers are not rich; they should not be expected or made to look for a livelihood to the fees obtained from the students; that is a fact now acknowledged, and an ideal realized in the medical depart-

ment of Columbia University. Laboratories of hygiene, chemistry, physics, botany, biology, should not be supported by the contributions of medical men only, or perhaps not at all. What monarchy is in the old world, that is democracy in the new, namely, the evidence and representation of the condition of its political and moral civilization. Hospitals you have built in large numbers, and in some instances more than required, and still some more are demanded. No scholar is imaginable without a library, no anatomist without a dissecting-room and a museum, no chemist or physicist or physiologist without experimentation, no medical graduate who is to practice on you and yours without instruction in a clinical hospital intimately connected with the medical school, and situated on or near its grounds. Imagine, mothers, that every year hundreds of men and women begin the practice of medicine without ever having seen a baby sick in bed.

There is many another way in which the community may render itself useful to the medical profession. See to it that no personal interest, vanity, or misapprehension interfere with the progress of medicine. It is through our own efforts that we overcame the lack of knowledge on the part of legislators, and the opposition of medical schools, when we enforced a certain amount of preliminary education and the establishment of state examinations. See that these your gains, for they are yours, be not taken away from you; they were conquered in your behalf. See that scientific study and progress are not shorn of their prerogatives, that is, experimentation, and that your legislators are not influenced except by facts. When, for instance, agitators speak to you of the cruelties of vivisection, remember that they select that hard word in order to conceal what it means, that is, animal experimentation, which is already secured and protected against barbarousness and cruelty by a well-adjusted and satisfactory law, that was passed by former legislatures

and ought to be left intact. Tell them also that you know that the action of many therapeutical remedies useful to them and their children could be studied by animal experimentation only; that one of the most formidable calamities of former times, the terror of every woman who was to become a mother, childbed fever, has been reduced to the very lowest figure wherever the teachings of animal experimentation have been heeded; that hydrophobia, always fatal, has been made accessible to treatment with at least fair results; that tuberculosis may be and is in part confined within certain limits; that the prevention of cholera, even that of the plague, is no longer a dream; that the mortality of diphtheria is reduced to nearly one-half of what it was; that quite certainly the future therapeutics of scarlet fever, measles, typhoid fever, and other scourges of mankind will be based on anti-toxins; that the success of surgical operations under the influence of antiseptis and asepsis is simply marvellous; and that all these blessings are the direct result of animal experimentation. Tell them also that the horse or sheep that furnishes the antitoxin which is to save American children does not even suffer, and if it comes to the worst, if rabbits and guinea-pigs have to be sacrificed by humane men armed with skill and anæsthesia, that the future ought to belong as much to mankind, ay, more to mankind, than to rabbits and guinea-pigs, or to those animals that you hunt over fences and brooks, and with the permission of the law shoot to death amidst the excited laughter of sport, but pretend to shed tears over when science tries to fathom new wonders, to establish more firmly the foundations of health and life for old and young, and to discover new means of salvation for this republic and mankind.

In what I state I identify the demands of the profession at large and of medical science with those of the New York Academy of Medicine. Ours is "*Una*

fides, altare commune," one faith and a common altar. That shibboleth you will find is the sole inscription on our home in Forty-third Street. What you will do for one you will be doing for all. Whatever you do, you will contribute to the medicine of the present and of the future, and to the great work in store for it. We know that it is levity only that makes empty hypotheses, sometimes, unfortunately, even laws; that much labor, however, and hard work are required to obtain great results. In all humility, but with earnestness, medical men tender you their labor in practice, in hospitals, on the teachers' platform, in the laboratories. What they expect and look forward to is appreciation not of the individual, but of the aggregate work, and co-operation on the part of the public, for the immediate results of our work are at the same time humane and practical. The reduction in your death rate of one in a thousand means, beyond the saving of one life, a lowering of more than thirty in the total number of cases of sickness, and therewith prevention of much anxiety, wretchedness, and financial loss or ruin in as many families. Results like these are liable to be accepted as natural; they are claimed, as it were, as the normal appendages of modern civilization. It should not be forgotten, however, that they are obtained only by the work of medical men who labor for the good they can do, often as hermits, unknown and unappreciated, always bent upon the diminution of the number of problems which hitherto were deemed hopeless. The medical searcher is like the astronomer who differentiates in nebulous distances stars big and small, luminous and dark, fixed and migrating. More than any other man, he spies for the relation and connection of things and phenomena, and becomes the true philosopher and physician, who was called god-like, by a great poet three thousand years ago.

Much of what I touched upon has been, or is being accomplished. The rapidly increasing facilities of

investigation have changed the methods and aspects of modern medicine to such an extent as to make me anxious to know what the orator of the next semi-centennial celebration will have to say to you. Part of it I know, and you will know it too when I beg you to consider with me during the last minute of my address the possibilities and the certainties of medicine. Its methods of investigation will never be changed, for they have become those of natural science, and these, because they are based on observation and experimentation, are unalterable. Indeed, medicine is a part of the natural sciences; the human organism, well and sick, physical and spiritual, is the subject of its scrutiny. Man's nature, both normal and abnormal, belongs to the domain of medical inquiry. Psychology has for some time past become a branch of physiology. The sound mind, its aberrations and freaks, the soul with its holiness or turpitude, no matter whether considered by the believing philosopher or the searching materialist, are topics of biological study. The explanation and relations of most intimate physical and psychical processes are sought for, will always be sought for, by the sanitarian, the teacher, the clergyman, the judge, the statesman. It is in medicine that they will find them. The time will soon come when the culture of a nation will be estimated according to the mutual relations of medicine and the people.

Is this an ideal? It is, but no Utopia. Indeed, much of what was an ideal twenty-five years ago has been achieved. It is probably true, however, that no ideal will ever meet with its entire consummation, and ideals will be modified or expanded. Nor do I believe that even the star guiding the three sages of the East shone always with equal splendor. Thus it is possible that what I earnestly hope for in the next half century will not be completely fulfilled; but woe to the man, to the profession, to the nation, without an

ideal as a guiding star. To medicine in its legitimate and just meaning that star is the improvement of man both individually and collectively. It demands and promises the combination of scientific research into the wants of mankind, with the application of preventives and remedies for its physical, intellectual, and moral dangers and defects. To keep and fortify medicine on that platform is the ideal of our calling. By working for it, medicine and medical men may create that power which alone protects individuals against hebetude or despair and nations against wreck and perdition. That power is benevolence, beneficence, and mutual assistance.

